

7-9<sup>th</sup> June  
2022  
webinars

# ARTIFICIAL INTELLIGENCE

**for the Public Sector**  
JRC and DIGIT Science for Policy **CONFERENCE**

European landscape on AI in  
the Public Sector

An extract from JRC's research



# Our projects




[https://ai-watch.ec.europa.eu/index\\_en](https://ai-watch.ec.europa.eu/index_en)

## Innovative Public Services

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Documents

2020 Scientific methods, data and information Information society

### Innovative Public Services Observatory

**Abstract:** The Innovative Public Services Observatory (IPSO) is a platform jointly created by DIGIT and JRC in the framework of the IPS Action of the EU ISA<sup>2</sup> Programme, with the purpose of monitoring the adoption and use across Europe of emerging and disruptive technologies - as AI, DLT, IoT, APIs - for the provision of public services. This collection includes the data produced by the observatory.

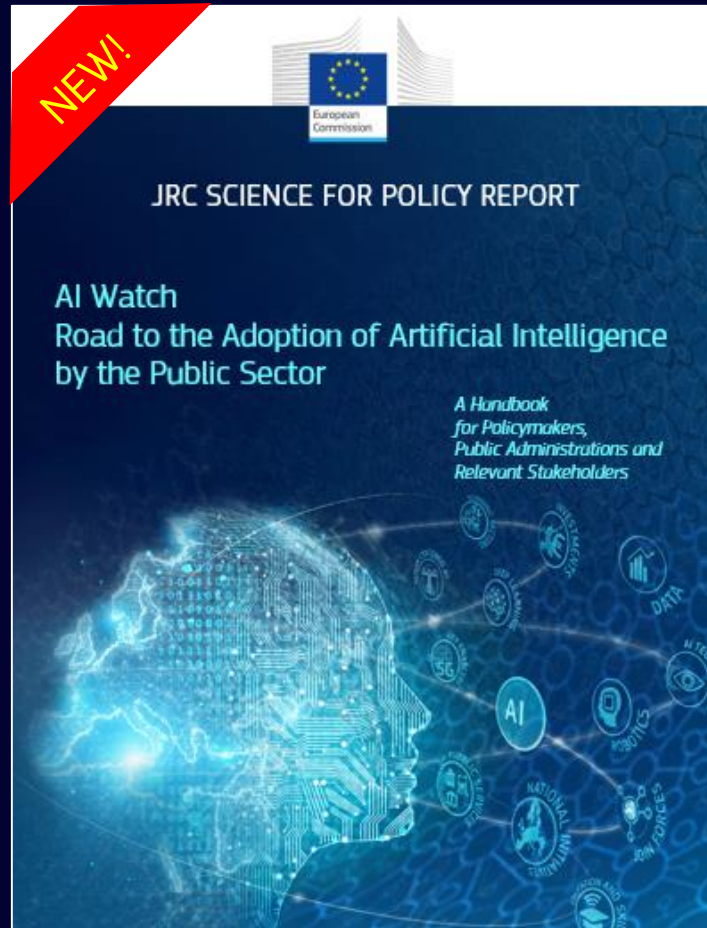
**Authors:** PEREGO Andrea; ULRICH Peter; DALLA BENETTA Alessandro

**Citation:** Perego, A., Ulrich, P. and Dalla Benetta, A., Innovative Public Services Observatory, European Commission, 2020, JRC120247.

**Publisher:** European Commission

<https://joinup.ec.europa.eu/collection/innovative-public-services>

# Our recent publications





# European Landscape

1. Analysis of the AI national strategies with a focus on the public sector
2. Inventory of use cases of AI in the public sector
3. In-depth case studies





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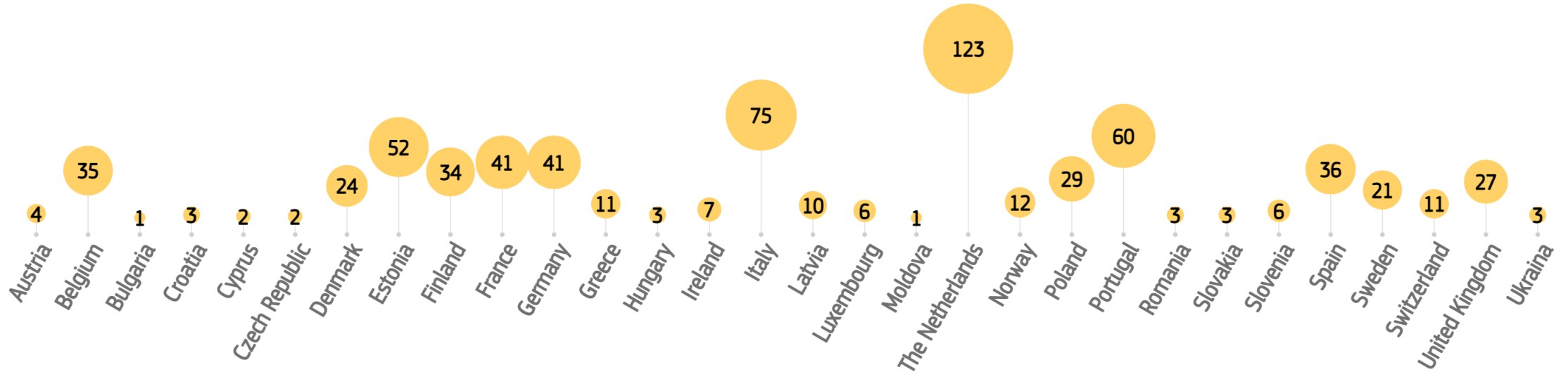
# AI case inventory

# 686

AI Cases collected and validated

## How did we collect cases?

- Country repositories or research studies
- News articles
- Responses to our AI Survey



n.b. the cases are not statistically representative. No comparison can be done among the different countries

Published cases: [Joint Research Centre Data Catalogue - Selected AI cases in the public sector - European Commission \(europa.eu\)](#)



### Organisation Features

**Responsible Organisation**

- Central Governmental
- Local Governmental
- Private sector
- Academic-Research
- Non-governmental
- Community led
- Consortium

**Geographical Extent**

- Local
- Regional
- National
- Across Countries

**Functions of Government I**

- Defense
- Economic affairs
- Education
- Environmental protection
- General public services
- Health
- Housing and community amenities
- Public order and safety
- Recreation, culture and religion
- Social protection

### Service Description Features

**Process type**

- Enforcement
- Analysis, monitoring and regulatory research
- Adjudication
- Public services and engagement
- Internal management

**Recipients**

- G2C Government to Citizen
- G2B Government to Business
- G2G Government to Government

**Data input**

- Dynamic Data
- Historical Data
- Location Data

**Application type**

- Smart Recognition processes
- Engagement management
- Financial management and support
- Information analysis processes
- Management of auditing and logging
- Data sharing Management
- Monitoring policy implementation
- Prediction and planning
- Predictive enforcement processes
- Service integration
- Service personalisation
- Supporting inspection processes
- Taking decisions on benefits
- Internal primary processes
- Internal support processes
- Internal management processes



### Value of Service Features

**Improved Public Service Value**

- Personalised Services
- Public (citizen)-centered services
- Increase quality of public information and services
- More responsive, efficient, public services
- New services or channels

**OpenGov Capabilities**

- Increased transparency of PS operations
- Increased participation in government actions
- Improved public control and influence on government actions

**OpenGov Capabilities**

- Cost-reduction
- Responsiveness of government operation
- Improved management of public resources
- Increased quality of processes and systems
- Better collaboration and better communication
- Reduced or eliminate the risk of corruption and abuse of the law by public servants
- Enabled greater fairness, honesty, equality

### Artificial Intelligence Features

**AI Domain**

- Reasoning
- Planning
- Learning
- Communication
- Perception
- Integration and Interaction
- Services
- Ethics & Philosophy

**AI Subdomain**

- Knowledge representation
- Automated reasoning
- Common sense reasoning
- Planning and Scheduling
- Searching
- Optimisation
- Machine Learning
- Natural Language Processing
- Computer Vision
- Audio Processing
- Multi-Agent systems
- Robotics and Automation
- Connected and Automated vehicles
- AI Services
- AI Ethics
- AI Philosophy



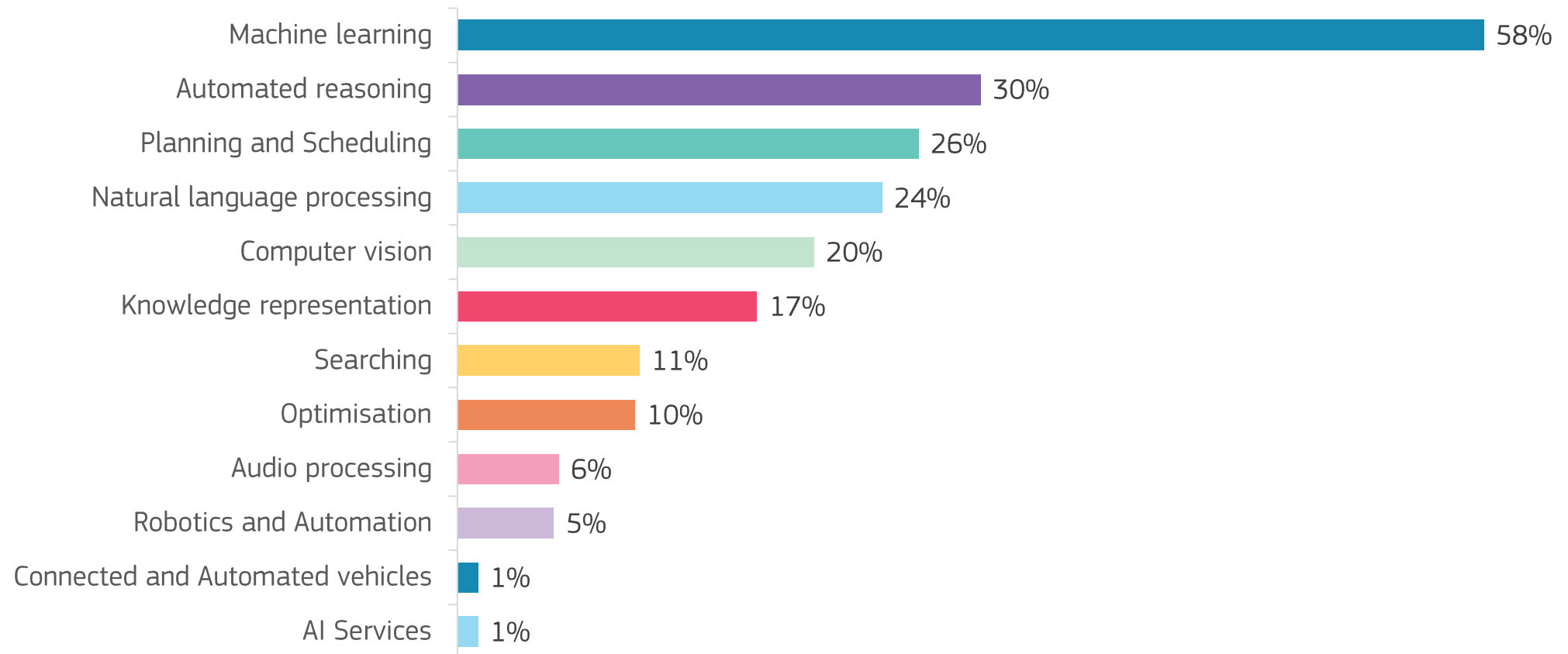


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# AI cases by technology

➤ ML is the main AI technology, even though the spectrum of opportunities is varied







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# AI cases by status

➤ Several cases are already implemented and in use in daily operations



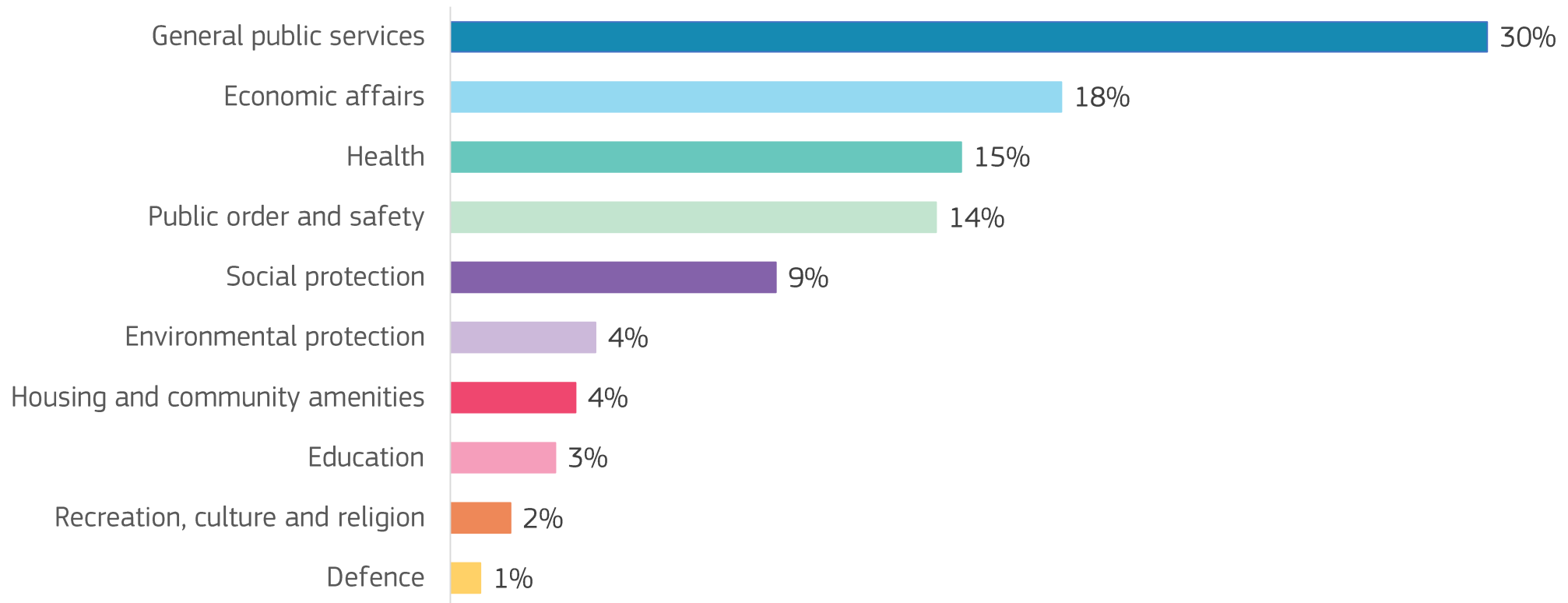


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# AI cases by COFOG

③ 30% of the cases aim at improving public service management and delivery



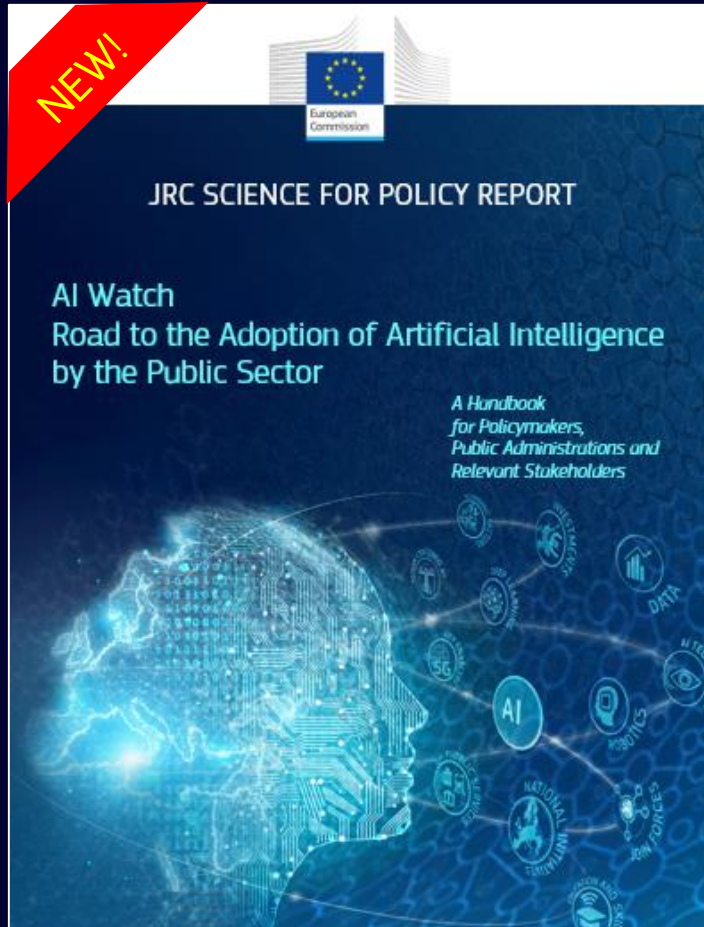


# AI cases - Open Data

## JRC Data Catalogue

ID	Name	Website	Description	Geographical extent	Geographic coverage Country
1	AMS - public employment service	<a href="https://www.fronti">https://www.fronti</a>	As of 2020, the Public Employment Service Austria	National	Austria
2	Mona - Public chatbot for companies	<a href="https://www.usp.gv.a">https://www.usp.gv.a</a>	The new chatbot "Mona" is intended to cover all	National	Austria
3	CitizenLab - Youth for Climate	<a href="https://youth4climat">https://youth4climat</a>	Collecting input was just the easy part: in order to	National	Belgium
4	Walloon - Agricultural subsidy	<a href="https://inspire.ec.eur">https://inspire.ec.eur</a>	Walloon uses geo AI with satellite imagery to	Regional	Belgium
5	AcPaas - Technical procurement	<a href="https://acpaas.digip">https://acpaas.digip</a>	The city of Antwerp has a platform called Antwerp	Local	Belgium
6	Flemish Infoline - Automatic	<a href="https://www.innov">https://www.innov</a>	NLP is used to automatically classify incoming	Regional	Belgium
7	ILVO - List of multiple AI projects in	<a href="https://ilvo.vlaandere">https://ilvo.vlaandere</a>	The Institute for Agricultural, Fisheries and Food	National	Belgium
8	Belgium - Detection batch numbers	<a href="https://www.kindeng">https://www.kindeng</a>	Child and Family has a proof of concept regarding	National	Belgium
9	Verontrusting - Enabling accurate		The Flemish Agency for Child and Family (Kind en	National	Belgium
10	Camera System - Mobile phone	<a href="https://baseline.vias">https://baseline.vias</a>	Traffic institute Vias is currently testing a new	Local	Belgium
11	PaveAI 2.0 - Interprets the figures in	<a href="https://flemishmaste">https://flemishmaste</a>	VISITFLANDERS has there an experiment with	Regional	Belgium

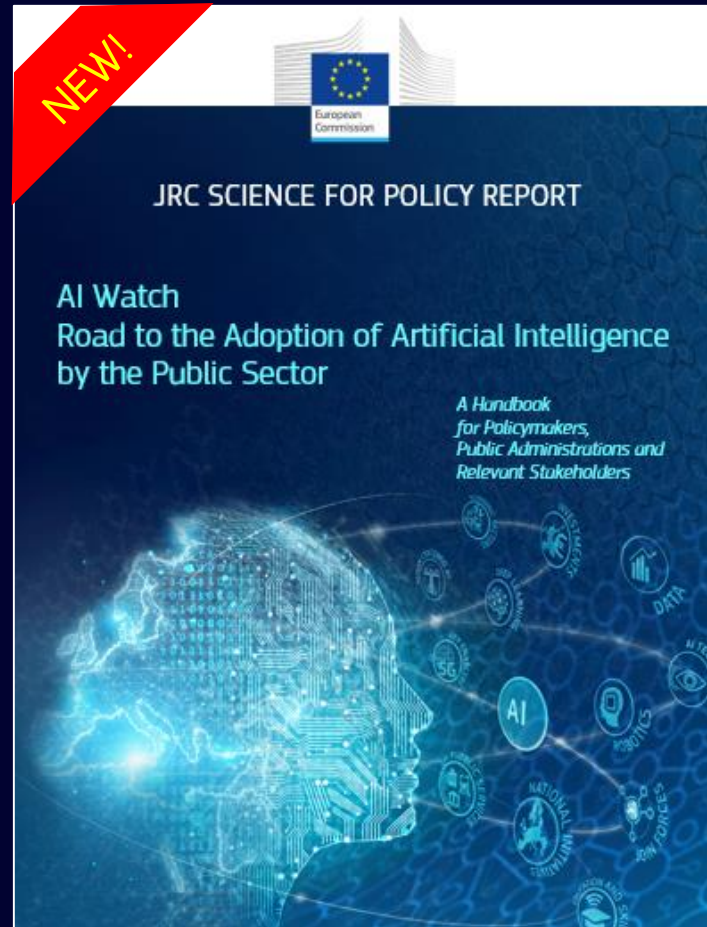
# Our recent publications



**CONFERENCE : ARTIFICIAL INTELLIGENCE for the Public Sector**



# Road to the adoption of AI



**4** Areas of interventions

**16** Recommendations



## Area 1

Promote an EU value-oriented, inclusive, human-centric and trustworthy AI in the public sector

- 1.1** Harmonise and complement EU regulations to promote human-centric and trustworthy AI enabled public services for all citizens.
- 1.2** Promote the adoption of ethical principles, the development of guidelines and the identification of mitigating measures to minimize the risks of deployment of AI by the public sector.
- 1.3** Develop and promote dedicated AI-enabled solutions based on co-creation approaches to increase relevance of services, and citizens' and businesses' trust and confidence in the use of AI by the public sector.

## Area 2

Enhance coordinated governance, convergence of regulations, and capacity building

- 2.1** Create an EU-wide network of governance bodies for a streamlined management of AI in the public sector.
- 2.2** Design national and European capacity-building programs for public sector innovators aiming to develop and/or adopt AI in support of the digital transformation of public services.
- 2.3** Build upon and promote the use of regulatory sandboxes for public administrations, allowing experimentation of AI-enabled solutions in controlled environments.
- 2.4** Optimise funding in support of AI in the public sector to promote the spreading and scaling of reusable solutions.
- 2.5** Promote the development of multilingual guidelines, criteria, and tools for public procurement of AI solutions in the public sector throughout Europe.

## Area 3

Build a shared and interactive AI digital ecosystem

- 3.1** Support multidisciplinary research and knowledge creation amongst European universities and Research and Development (R&D) institutions around AI for the public sector.
- 3.2** Build a common European Data Space for public sector bodies and their operators, drawing from the compilation of relevant AI datasets and related Registries throughout Europe.
- 3.3** Reinforce and advance existing initiatives on open data and interoperability.
- 3.4** Share reusable and interoperable AI components at all operational levels of European public administrations.
- 3.5** Create a European marketplace for GovTech solutions in support of public sector digital transformation.

## Area 4

Apply and monitor sustainability through value-oriented AI impact assessment co-created frameworks.

- 4.1** Set up an EU observatory on AI, built on a pan-European network of AI national observatories to gather, share, and collectively manage best practices and experiences learned from different stakeholders in the public sector throughout Europe.
- 4.2** Develop and apply umbrella impact assessment frameworks based on key influencing factors to measure the use and impact of AI in the public sector.
- 4.3** Promote AI in the public sector in support of sustainability while developing sustainable AI, in compliance with environmental principles, and leveraging on civic engagement and participation.

An abstract graphic in the top right corner consisting of numerous thin, glowing lines in shades of blue, cyan, and purple. These lines are interconnected at various points, some ending in small circular nodes, creating a complex, web-like structure that suggests a network or data flow.

Thank You